

introduces the risk of corrosion on these two parts, thereby exacerbating concerns of prolonged structural integrity. To counter this problem, the doubler-strap is coated with a protective coating that is a heat-cured ceramic powder coating, either Midrofin Allseal or preferably SermeTel ® 5380DP, and the filler-straps are coated with an alodine conversion coating and then a primer coat. This effectively eliminates direct contact between the dissimilar metals, and, furthermore, decreases the risk of corrosion arising from salt water environments. Furthermore, the aluminum filler-strap, which is more easily replaceable than the doubler-strap, will corrode before the doubler-strap.

In the Claims:

Please amend **Claim 1** as follows:

1. A modification kit for retrofitting a wing spar on an amphibious airplane, said airplane having a root rib, and said wing spar comprising a wing-spar cap angle that is attached to a wing spar web, said wing spar web having an upper edge and a lower edge and an inboard end that attaches to said root rib, a first series of wing-attach bolt-holes that is provided in said upper edge and a second series of wing-attach bolt-holes that is provided in said lower edge of said wing spar web, wherein said root rib is angled relative to a vertical plane of said amphibious airplanes, and wherein said inboard end of said wing spar has an inboard-end angle that corresponds to an angle of said root rib, said modification kit comprising:

- an upper doubler-strap and an upper filler-strap;
- a lower doubler-strap and a lower filler-strap; and
- a plurality of wing-spar attachment-bolts;

wherein each said upper filler-strap and each said upper doubler-strap have a third series of wing-attach bolt-holes that corresponds precisely with a first series of wing-attach bolt-holes in an upper edge of a wing spar web, and said lower filler-

16 strap and said lower doubler-strap have a fourth series of wing-attach bolt-holes that
17 corresponds precisely with a second series of wing-attach bolt-holes in a lower edge
18 of said wing spar;
19

20 wherein said upper and said lower doubler-straps have a doubler-protective-
21 coating and said upper and said lower filler-straps have a filler-protective-coating,
22 and

23 wherein said upper doubler-strap has an upper inboard-end angle and said
lower doubler-strap has a lower inboard end angle.

0¹₂ 3 7. The kit of **Claim 1**, wherein said doubler-protective coating is a powder
coating that is heat-cured to form a ceramic coating.